‘How to guide’

Safe use of insulin: Inpatients

Aim

To help pharmacists asked to lead on insulin safety, particularly adherence with NPSA RRR013 Safer administration of insulin. (Link)

How to get started

Find out what current practice looks like: you may already have a good idea what problems occur with insulin from your day to day work around the hospital.

- Look at the most recent National diabetes inpatient audit (Link). The spreadsheets have information for each NHS trust on prescription and medication management errors and also patient views on their care.
- Other relevant data may be available; did your organisation take part in the Specialist Pharmacy Service insulin audit (link) or are there any recent local audits on insulin?
- Find out what has been done locally already for the NPSA requirements and for diabetic patients more generally e.g. drug chart revisions, development of specialist diabetes teams
- Talk to your Medication Safety Officer about insulin incident reports. He/she can help you check your local error reporting (e.g. datix) for insulin incidents
- Make anonymised copies if you or colleagues come across ‘unsafe’ charts or other issues
- Find and talk to any specialist diabetes nurses about their insulin concerns
- Ask around informally (e.g. patients, nurses and other staff) about using insulin
- Does the trust have a policy which enables patients to self-administer insulin? This is part of the 2011 Safety Alert on the Insulin Patient Passport (Link)
- How does the trust ensure that insulin syringes and subcutaneous needles can be obtained at all times e.g. back-up supplies out-of-hours
- Are insulin infusions prepared on the ward by nursing staff or do they have access to ready-to-use products?
- Is training provided for all trust staff that prepare, prescribe and administer insulin? Is this mandatory and who in the trust monitors training uptake?
- What steps are in place to ensure safe use of high strength insulin products, greater than 100 units/mL?
- Does your organisation contribute to the NHS Medications Safety Thermometer (link). If so, this includes data about missed doses of insulin and episodes of hypo or hyperglycaemia

Deciding your priority

- This has to be based on what you have found out about current practice and needs to be discussed with your manager/senior team and Medication Safety Officer
- Pharmacy cannot act in isolation. There may already be a diabetes group in the organisation which can take responsibility or work with you. Otherwise you will need to
convene a multi-professional group to work together to agree actions and measures. Try and identify ‘champions’ in and outside pharmacy who can lead and support this work

- For 2015-16, patient harm resulting from an overdose of insulin due to abbreviations or incorrect device are ‘Never Events’, so action may be particularly urgent. Overdose is defined as follows:
  - When a patient receives a tenfold or greater overdose of insulin because a prescriber abbreviates the words ‘unit’ or ‘international units’, despite the care setting having an electronic prescribing system in place. *(NB Now only applies where there is electronic prescribing.)*
  - When a health care professional fails to use a specific insulin administration device i.e. does not use an insulin syringe or insulin pen to measure insulin
- Enabling patients to self-administer insulin when possible is very important to patient satisfaction and can improve safety
- Safety incident reports or pharmacy intervention data may suggest most problems occur on a small number of wards: you could start work with one of these wards before wider rollout across the trust

**General strategy**

1. Start by putting together a list of the key points you have found out about current practice in your trust from the ‘how to get started’ section. Include what good work is already in place along with areas for improvement. Arrange a meeting with your manager and a colleague such as the pharmacy safety or diabetes lead. Talk through the key points and decide what the possible priority areas are. Choose several possibilities to take forward. This means you still have flexibility so others can influence the agenda.

2. Arrange to present both the key points and possible priorities at a pharmacy staff meeting. For the possible priorities, identify a few pros and cons for each. What practical steps can be taken to improve things? Ask the staff what they feel is most important and what they would support. Try and get agreement for 2-3 to take forward.

3. For the identified priority areas, you need to identify all the stakeholders outside pharmacy involved in these aspects of insulin safety. Nurses are likely to be particularly important, along with the lead diabetes clinician, diabetes specialists, prescribers and patients.

4. Write a short paper (e.g. 1-2 sides of A4) with key points about the areas you want to take forward. For each area include the nationally required standard (e.g. NPSA, Never Events), current local performance and what this performance level means in terms of risk to patients and the trust. You need this to explain to anyone outside pharmacy (managers and clinicians) what you want to achieve and why it matters. The paper needs to go to your clinical governance committee, nursing lead and diabetic specialists to get feedback and ensure they will support the action areas. This can also be used to recruit members to a stakeholder group to support the action at step 5.

5. Once you have agreed the first action area, plan your work using the improvement methodology: Plan Do Study Act (PDSA cycles). *(Link)*
You must have some way of measuring how well the initiative is working. This means you need to measure both before and after any change is introduced. Your measure needs to be simple and the data easily collected. You may be able to use data the trust collects anyway like medication safety incident reports or the patient experience surveys. Example insulin audit tools can be found in Useful information (1) below.

Start small, perhaps just one ward for a day or a week. Look at the data before and after your change. Feedback to all involved whether the change has worked. Keep going with short improvement cycles until things are working well. Then you can plan how the same change might be achieved on other wards and eventually across the whole trust.

Useful information

1. Patient Safety Resource Centre. The Health Foundation ([Link](#))

2. Staff training on insulin was originally provided free of charge by the NHS. This is still available from The Virtual College, but since 2014 there is a charge for organisations and individuals wishing to complete the modules. [Link](#)

3. NHS Diabetes and Think Glucose (from NHS Innovation & Improvement) were closed in 2013, but archived websites can still be accessed.

4. The American Institute for Healthcare Improvement also has information on reducing adverse events due to insulin [Link](#)

There are additional specific ‘How to guides’ for tackling:

1) Prescribing abbreviations – Insulin ([link](#))
2) Patient self-administration – Insulin ([link](#))
3) Missed and delayed doses ([link](#))

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